

WHAT IS CLAIMED IS:

1. A method for inspecting leakage of a container,
comprising:

5 a differential pressure generation step of
generating a differential pressure between the inside and the
outside of a container;

10 an ozone gas addition step of adding ozone gas to a
higher pressure side of the inside and the outside of the
container;

an ozone concentration detection step of measuring
an ozone concentration of a lower pressure side of the inside
and the outside of the container; and

15 a leakage determination step of determining presence
of the leakage of the container based on a change in the
ozone concentration.

2. The method according to claim 1,

20 wherein the differential pressure generation step
has a container storage step of storing the container in a
storage container, and a container pressurization/pressure
reduction step of operating one of pressurization and
pressure reduction for one of the container and the storage
container.

25 3. The method according to claim 1,

wherein the ozone gas addition step has an ozone gas

generation step of generating ozone gas from the atmosphere,
and an ozone gas feeding step of feeding the ozone gas to the
higher pressure side of the inside and the outside.

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4. The method according to claim 1,

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wherein the ozone concentration detection step has
an ozone concentration measuring step of measuring an ozone
concentration in a lower part of the inside or the outside by
an ozone sensor, and an ozone concentration signal output
step of outputting a signal corresponding to the measured
ozone concentration.

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5. The method according to claim 1,

wherein the leakage determination step has an ozone
concentration comparison step of calculating a concentration
difference between the ozone concentration and a
predetermined ozone concentration, and an ozone concentration
determination step of determining presence of leakage when
the concentration difference is larger than a predetermined
value.

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6. The method according to claim 1,

wherein the container is used as a container in
which liquid is sealed.

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7. An apparatus for inspecting leakage of a
container, comprising:

a storage container for storing a container therein
in a sealed state;

5 a pressurization/pressure reduction device which
communicates with one of the container and the storage
container to operate one of pressurization and pressure
reduction;

an ozone gas feeder for feeding ozone gas to a
higher internal pressure side of the container and the
storage container; and

10 an ozone concentration detector for measuring an
ozone concentration in a lower internal pressure side of the
container and the storage container,

wherein presence of leakage in the container is
determined when the ozone concentration exceeds a
15 predetermined value.